

King County Emergency Medical Services  
EMT Protocols and Standing Orders  
**Pulse Oximetry**

**Introduction:** Pulse oximetry is a simple non-invasive method of monitoring the oxygen saturation of hemoglobin. This is accomplished by the oximeter passing a beam of light thru the hemoglobin, and measuring the degree of oxygen saturation.

**Indications for use:** Anytime oxygen is in use or is to be administered to the patient based on their complaint or condition. This may include patients with the following;

- Shortness of breath
- Chest pain
- Altered level of consciousness
- Chest trauma
- Any trauma patient with a GCS of 10 or less.
- Active labor
- Or any other time the EMT feels the oxygen level of the patient needs to be assessed.

**Contraindications:** Patients less than 5 years of age.

**Use and application:** Place the probe on a clean digit, free of nail polish, of the patient's hand (the index finger is most commonly used). This should be accomplished simultaneously with the initial administration of oxygen (assuming oxygen is used) allowing for a "room air" estimate. Vital signs (BP, pulse, and respiratory rate) should be taken concurrently with application of the oximeter.

**Under no circumstances should oxygen administration be delayed to obtain oxygen saturation readings.**

Continued saturation readings and vital signs should be recorded frequently (at least every 5 minutes) while the patient is under the care of the EMT(s).

**Note:** Pulse oximetry is inaccurate in the following clinical situations:

- Shock
- Carbon monoxide poisoning
- Jaundice
- Nail polish

**Under no circumstances should the presence of a pulse oximeter detract from patient care. Decisions of patient care should be made based on the patient's complaint and presentation regardless of pulse oximeter readings.**

**TREAT THE PATIENT, NOT THE OXIMETER**